

COMPANION Base Station

COMPANION Base Stations provide the radio link for the COMPANION Wireless Communications System for Business.

The Base Stations are mounted on walls or ceilings throughout a building. They send and receive calls between the portable telephones and the Controller.

As you talk, your conversation is picked up by a Base Station and as you move, it hands the call to another Base Station in the system. This ensures the highest quality audio for your conversation while you move.

Installation is simple as the Base Stations require ordinary telephone wiring to connect with the Controller.



COMPANION Base Station

NORTEL
NORTHERN TELECOM

Each COMPANION Base Station supports two simultaneous calls and depending on traffic requirements, one to four Base Stations can be grouped together to form a cell.

The digital voice quality of the COMPANION system is enhanced by antenna diversity. This means that, as people move, the Base Station samples the reception on its antennae and continually switches to the one with the best reception.

By adding optional external antennae, coverage can be extended outside a building.

As the number of users or coverage area increases, more Base Stations can be added. This means growth is modular and cost effective.

The advanced digital radio means superior voice quality with no interference or eavesdropping.

Design Summary

Cell Radius

- ▶ In a building: 65-230 ft. depending on building construction
- ▶ Open environment: up to 650 ft.

Distance from Controller

- ▶ 3900 ft. with twisted pair 24AWG wiring

Base Station Traffic Capacity

- ▶ 2 simultaneous calls (2 channels)

Cell Traffic Capacity

- ▶ 2-8 channels or 1-4 Base Stations

Antenna

- ▶ Internal: dual antennae for each radio (antenna diversity)
- ▶ External: optional for outdoor coverage or directional coverage indoors

Installation

- ▶ Mounted on ceiling or wall with supplied bracket

Power

- ▶ Remote power through twisted pair 48V DC
- ▶ Local power plug-in 110V AC transformer

Operation

- ▶ Type approved, radio licence not required

Weight

- ▶ 1.8 lbs

Dimensions

- ▶ 8 x 12 x 2 in.

Color

- ▶ Dolphin gray

Operating Temperature

- ▶ 32°F to 104°F

Storage Temperature

- ▶ -13°F to 158°F

Radio Protocol

- ▶ Personal Communication Interface (PCI)
- ▶ 1.92 GHz-1.93 GHz
- ▶ Dedicated frequency for unlicensed PCS
- ▶ 99 voice channels
- ▶ Frequency Division Multiple Access (FDMA)/Time Division Duplex (TDD)
- ▶ 100 kHz channel spacing
- ▶ 32 kbits/sec Adaptive Differential Pulse Code Modulation (ADPCM) speech coding
- ▶ Dynamic Channel Selection
- ▶ Radio Frequency (RF) Output Power – 32 mW Effective Radiated Power (ERP) maximum

In the U.S.A.:

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COMPANION C3020 Portable Telephone

The COMPANION C3020 is a compact, portable telephone that can be opened with the push of one button.

When used with the COMPANION Wireless Business Communications System in a building, it enables people to make and receive calls anywhere on the premises.

Function keys provide quick access to features and the large two-line alphanumeric display shows the name and the number of the person or company calling when system is working with Meridian COMPANION or the C200 behind Centrex is used.

The C3020 Portable Telephone can have its own number. Or, it can share the same telephone number with a desk telephone, so that when a call comes in, both phones will ring. People can start a conversation on one phone and easily switch to the other.



COMPANION C3020 Portable Telephone



The COMPANION C3020 Portable Telephone supports a wide range of time-saving and convenient features such as:

- ▶ Calling Party Name Display (CPND)
- ▶ Call Line Identification (CLID)
- ▶ Visual Message Waiting Indicator (VMWI)
- ▶ Call Transfer
- ▶ Call forward
- ▶ Conferencing

Digital performance means the C3020 provides superior voice quality, with no interference or eavesdropping.

To deter unauthorized use, people can lock their portable telephones with their own password.

Low Power consumption means the C3020 has long battery life and will easily make it through a normal working day before requiring recharging.

Design Summary

Display

- ▶ 2 line Liquid Crystal Display (LCD) with status icons

Power Source

- ▶ 3 AAA batteries (alkaline or rechargeable nickel cadmium)
- ▶ Optional recharger with rechargeable nickel cadmium battery pack (1-2 hour charging time)

Power Consumption

- ▶ Alkaline: 13 hours talk time, 200 hours standby time
- ▶ Nickel cadmium: 4 hours talk time, 60 hours standby time

Weight

- ▶ 170 grams

CLID/CPND/VMWI

Prerequisites:

- ▶ Meridian COMPANION with Meridian 1 Release 20 Software
- ▶ Software package #240, package #95 also required for CPND
- ▶ C200 behind Centrex with CMS service

Dimensions

- ▶ 14.5 x 6.3 x 2.2 cm

Color

- ▶ Black

Operating Temperature

- ▶ 0°C to 40°C

Radio Protocol

- ▶ CT2Plus Class 2 Standard
- ▶ 944 MHz-948.5 MHz (944 MHz-952 MHz capable) Dedicated frequency for Personal Communications
- ▶ 40 voice channels (72 voice channel capable)
- ▶ Time Division Duplex (TDD)
- ▶ 100 kHz channel spacing
- ▶ 32 kbits/sec Adaptive Differential Pulse Code Modulation (ADPCM) speech coding
- ▶ Dynamic Channel Selection
- ▶ Radio Frequency (RF) Output Power – 10 mW Effective Radiated Power (ERP) maximum

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